

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

PENDING CLAIMS

1. (Currently Amended) A method of increasing the efficiency of transfection of cycling cells sensitive to ~~high-energy~~ electromagnetic radiation, comprising:
~~synchronizing at least 30% of said cells at a first stage of the cell cycle by contacting said cells with high-energy electromagnetic radiation, wherein said electromagnetic radiation is a member selected from the group consisting of: Gamma rays, X-rays, and ultraviolet rays and~~
~~transfected said cells at a second stage of the cell cycle within about one cell cycle of said first stage with a nucleic acid that encodes a desired gene product, wherein said efficiency of transfection is increased at least about fivefold over cells not contacted with said electromagnetic radiation.~~
2. (Currently amended) A method of claim 1 wherein said ~~high-energy~~ electromagnetic radiation synchronizes cells at a stage of the cell cycle when the nuclear membrane is substantially degraded.
3. (Currently amended) A method of claim 1 wherein said ~~high-energy~~ electromagnetic radiation synchronizes cells at late S phase.
4. (Currently amended) A method of claim 1 wherein said ~~high-energy~~ electromagnetic radiation synchronizes cells at the G₂/M phase boundary.

5. (Currently amended) A method of claim 1 wherein said ~~high energy~~ electromagnetic radiation synchronizes cells at a stage other than M phase, and the nucleic acid accumulates in cells that have cycled to the G₂/M phase boundary.

6. (Canceled)

7. (Previously presented) A method of claim 1 wherein said gene product is foreign to said cells.

8. (Previously presented) A method of claim 1 wherein said gene product is toxic to said cells.

9. (Previously presented) A method of claim 8 wherein said gene product induces apoptosis.

10. (Previously presented) A method of claim 1 wherein said nucleic acid is fully encapsulated in a lipid-nucleic acid particle.

11. (Canceled)

12. (Currently amended) The method of claim 44 1, wherein said ~~high energy~~ electromagnetic radiation is X-rays.

13-45. (Canceled)

46. (Previously presented) The method of claim 1, wherein said cells are present within a mammal.